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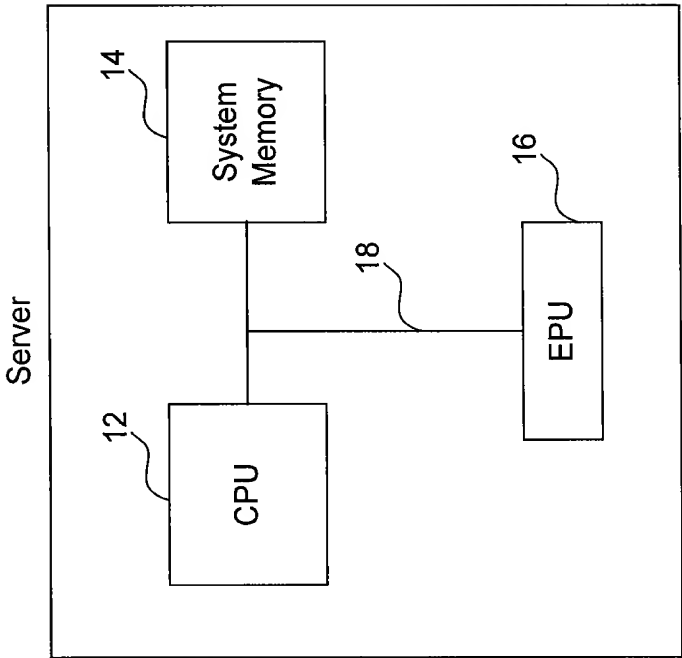


FIG. 1A

10

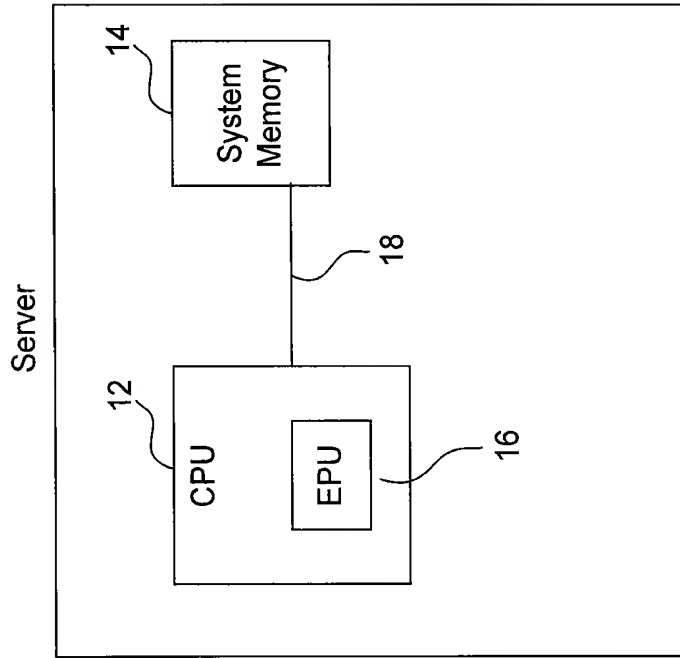


FIG. 1B

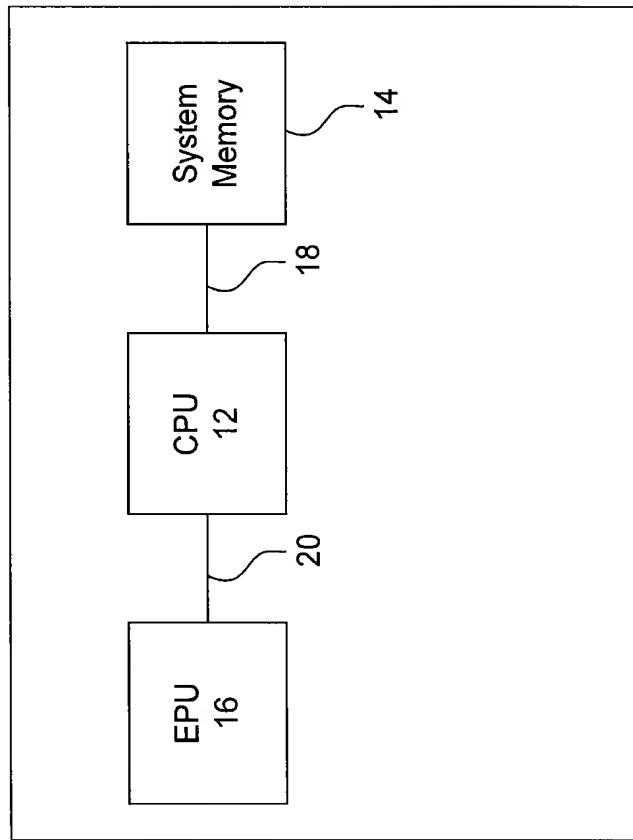


FIG. 1C

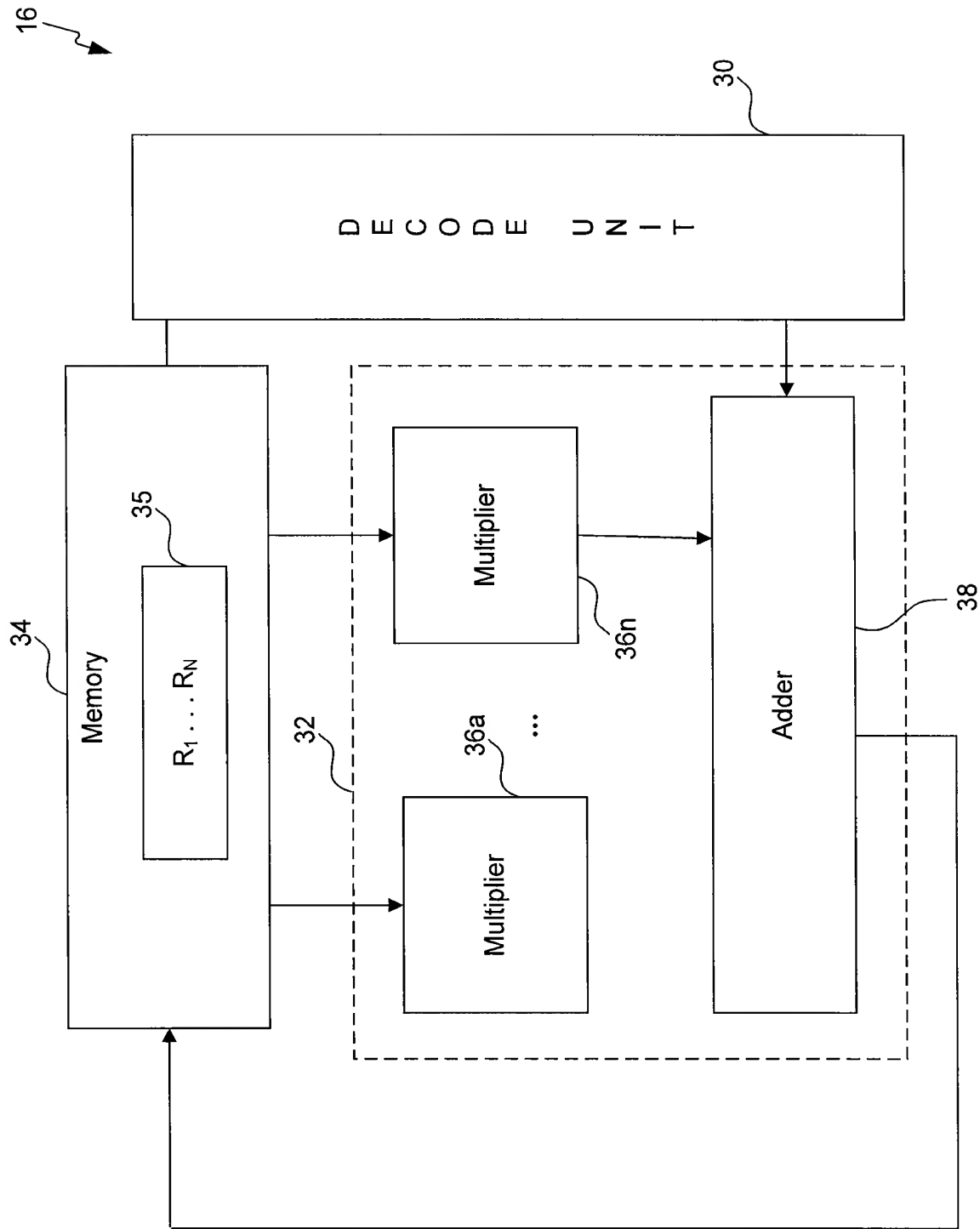


FIG. 2

<div><div><div>$a_1 a_0$ $b_1 b_0$</div></div><div>Product Operation</div></div>	
Cycle One	<div><div><div>MULT R₁ a₁ b₁ a₀ b₀</div><div><div>Description</div><div>a₁ b₁ and a₀ b₀ are simultaneously multiplied and the result is stored in Register R1</div></div></div></div>
Cycle Two	<div><div><div>MAC R2 a₁ b₀ R1</div><div><div></div><div>a₁ b₀ are multiplied and the product is added with the contents of R1 and stored in R2</div></div></div></div>
Cycle Three	<div><div><div>MAC R3 b₁ a₁ R2</div><div><div></div><div>a₁ b₁ are multiplied and the product is added with the contents of R2 and stored in R3</div></div></div></div>

FIG. 3

Square Operation

$$\begin{array}{r} a_1 a_0 \\ a_1 a_0 \\ \hline a_1 a_1 a_0 a_0 \\ 2a_1 a_0 \end{array}$$

		<u>Description</u>	
Cycle One	<u>Instruction</u>	MULT R1 a ₁ a ₁ , a ₀ a ₀	
		a ₁ a ₁ and a ₀ a ₀ are multiplied and stored in Register R1	
Cycle Two		a ₁ a ₀ , are multiplied and shifted by one and then added to the contents of R1. The result is stored in R2	
	<u>Instruction</u>	MAC 2X R2 (a ₁ a ₀), R1	

FIG. 4

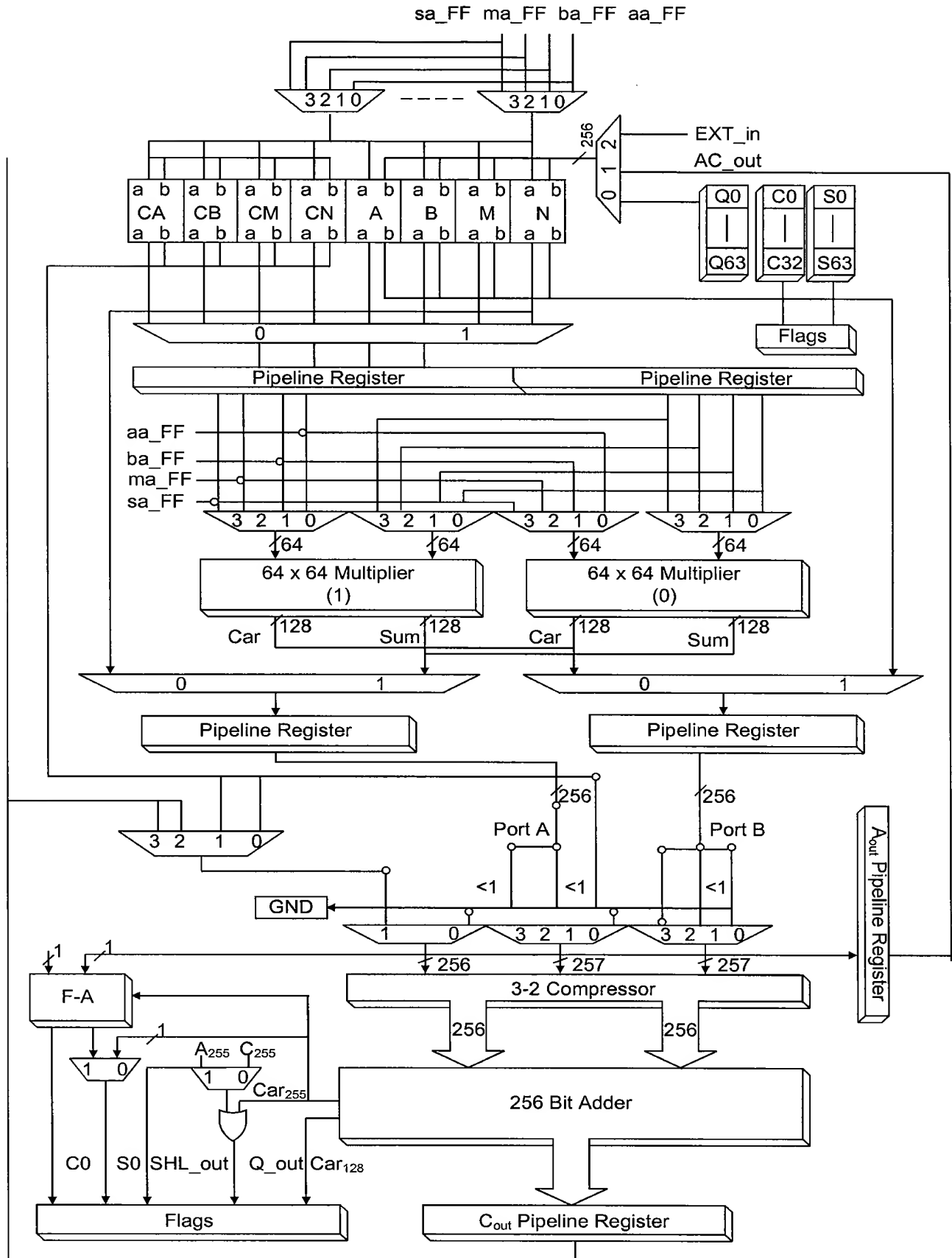


FIG. 5